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Shayfor E. Dunn  
Shayfor E. Dunn  
Date of Signature 3/18/02

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Malouf et al.

Examiner: Not Assigned

**Application No.: 10/029,413**

Group Art Unit: Not Assigned

Filed: December 20, 2001

Docket No.: 421/29/2

Confirmation No.: 3695

For: PURIFIED AND ISOLATED PLATELET CALCIUM CHANNEL NUCLEIC ACIDS  
AND POLYPEPTIDES AND THERAPEUTIC AND SCREENING METHODS  
USING SAME

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TRANSMITTAL OF FORMAL DRAWINGS

Dear Sir:

Please find enclosed a new set of formal drawings (17 sheets) for filing in the above-identified U.S. Patent Application.

Although a check is being submitted, the Commissioner is hereby authorized to charge any deficiencies of payment associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS & WILSON, P.A.

Date: 03/18/2002

By:

Arlen A. Taylor  
Arlen A. Taylor, Jr.  
Registration No. 39,395

Suite 1400 University Tower  
3100 Tower Boulevard  
Durham, North Carolina 27707  
Telephone: (919) 493-8000  
Facsimile: (919) 419-0383

Customer No. Bar Code Label:

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FIG. 1A

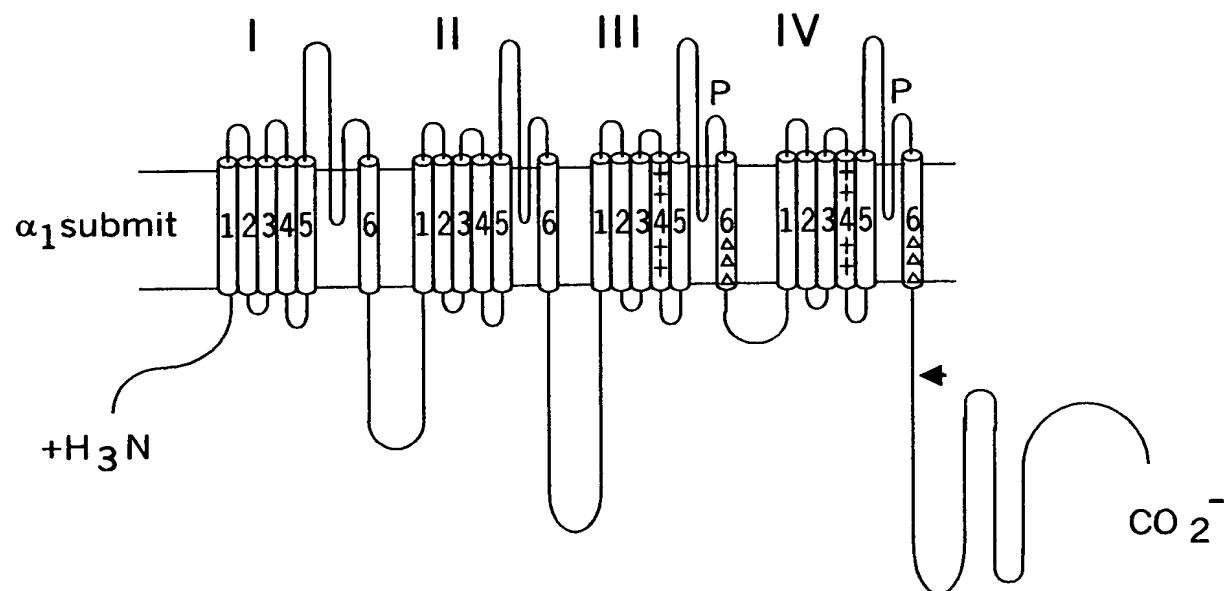


FIG. 1B

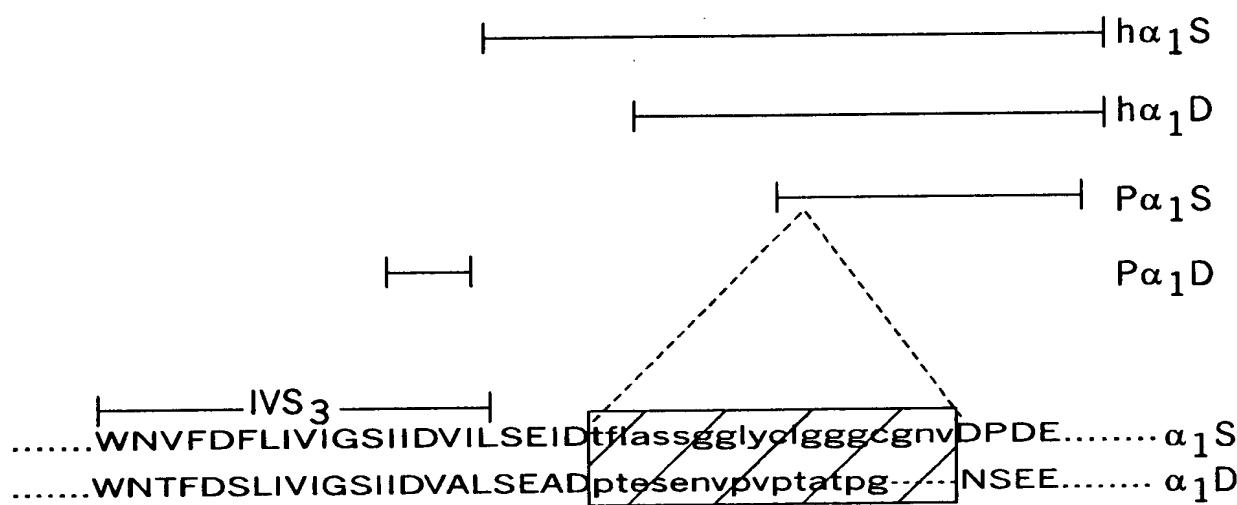


FIG. 1C



1      2      3

FIG. 1D

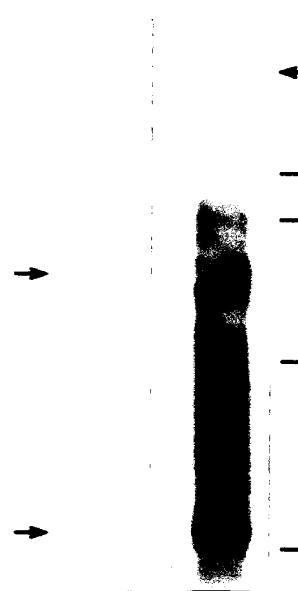


FIG. 2A

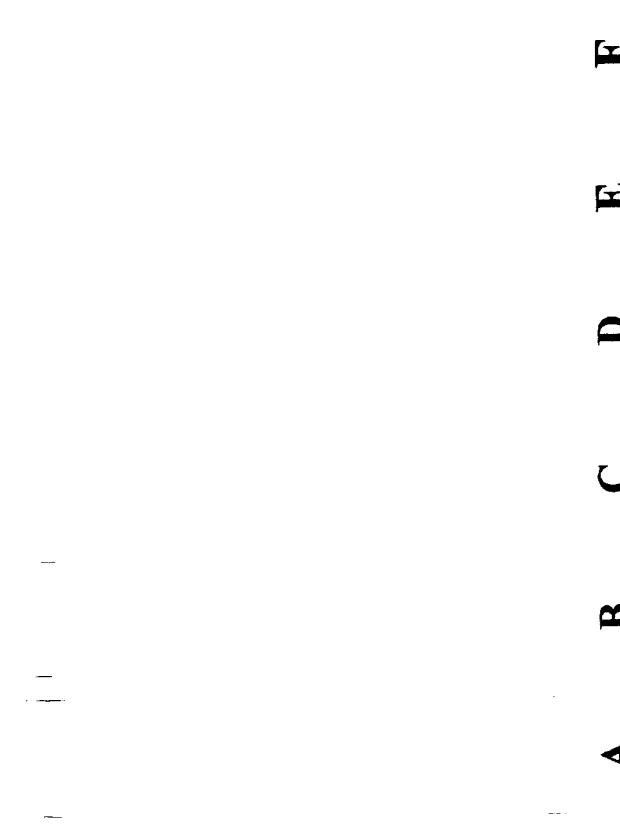
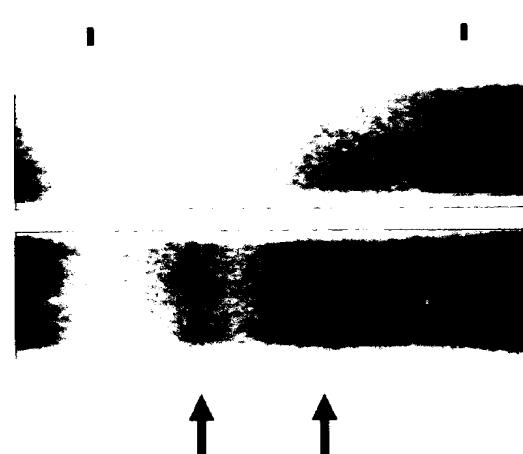


FIG. 2B



>ref|XM\_001910\_11| **Homo sapiens** calcium channel, voltage-dependent, L type, alpha 1S subunit (CACNA1S), mRNA, Length = 6615

**FIG. 3A**

Score = 79.8 bits (40), Expect = 1e-12  
Identities = 46/48 (95%)  
Strand = Plus / Plus

```

Query: 1 ctgattgtcatcggccatcatgtacgtcatccctcagtggatcgac 48
Sbjct: 3938 ctgattgtcatggagcatcatgtatgcatccctcagtggatcgac 3985

```

**Score** = 622 bits (314), **Expect** = e-176  
**Identities** = 462/510 (90%), **Gaps** = 1/510 (0%)  
**Strand** = Plus / Plus

Query: 109    ttgatcaaggatggctggccggggcggtggcggacgtgtccggaccttcatcaag 168  
 Start: 4103    cttatcaaggatggctggccggcagaaggatgtggacgttcatcaag 4162

డ్యూక్: 169 డిస్ట్రిక్ట్: 4169 ప్రాజెక్ట్: 228

**FIG. 3B**

FIG. 3C

>ref|NM\_000069.1| Homo sapiens calcium channel, voltage-dependent, L type, alpha 1S, subunit (CACNA1S), mRNA, Length = 6160

Score = 79.8 bits (40), Expect = 1e-12  
Identities = 46/48 (95%)  
Strand = Plus / Plus

Query: 1 csgarntcaacnngatcggatccggatcgatgc  
Sbjct: 3787 cggatccggatcgatgcggatccggatcgatgc  
3834

Score = 622 bits (314), Expect = e-176  
 Identities = 462/510 (90%), Gaps = 1/510 (0%)  
 Strand = Plus / Plus

DOI: 10.1007/s00162-010-0351-1

Query: 109 Subject: 3952 Ctgatccaaggctgtggccgacgttgtcgaaacctccatcaagg  
168 Query: 109 Subject: 3952 Ctgatccaaggctgtggccgacgttgtcgaaacctccatcaagg  
4011

សម្បូរ៖ ៤០១២ លេខរោងចាន់: ៦៩ សម្បូរ៖ ៤០៧១ លេខរោងចាន់: ២២៨

FIG. 3D

# FIG. 3E

>qb|L33798.1|HOMCACL Human dihydropyridine-sensitive L-type calcium channel alpha-1 subunit (CACNL1A3) mRNA, complete cds, Length = 6160

Score = 79.8 bits (40), Expect = 1e-12  
Identities = 46/48 (95%)  
Strand = Plus / Plus

Query: 1 ctgatgtcatcggcaggcatccatggacgtcatccctcagtgagatcgac 48  
Subject: 3787 ctgatgtcatcggcaggcatccatggacgtcatccctcagtgagatcgac 3834

Score = 622 bits (314), Expect = e-176  
Identities = 462/510 (90%), Gaps = 1/510 (0%)  
Strand = Plus / Plus

Query: 49 gacccaggatgtggaggatgtggccgcattccaggccatccggccgttccggccgttcggccatggatcgac 108  
Subject: 3892 ttgatcaaggatgtggaggatgtggccgcattccaggccatccggccgttccggccatggatcgac 3951

Query: 109 ttgatcaaggatgtggaggatgtggccgcattccaggccatccggccgttccggccatggatcgac 168  
Subject: 3952 ctgatcaaggatgtggaggatgtggccgcattccaggccatggatcgac 4011



# FIG. 4A

>ref|XM\_001910.1| Homo sapiens calcium channel, voltage-dependent, L type,  
alpha 1S subunit (CACNA1S), mRNA, Length = 6615

Score = 107 bits (54), Expect = 5e-21  
Identities = 63/66 (95%)  
Strand = Plus / Plus

Query: 1 tggaaatgttgtcgacttctgtatgtcatggcaggatcattgacgtcatccatcgatgt 60  
Sbjct: 3920 tggaaatgttgtcgacttctgtatgtcatggcaggatcattgatgtcatccatcgatgt 3979

Query: 61 atcgac 66  
Sbjct: 3980 atcgac 3985

Score = 507 bits (256), Expect = e-141  
Identities = 388/432 (89%)  
Strand = Plus / Plus

Query: 67 gaccggacgagatgtccgcatttcaggccctttccggctgttcggatgtcatgg 126  
Sbjct: 4043 gaccggacgagatgtccgcatttcaggccctttccggctgttcggatgtcatgg 4102

Query: 127 ttgatcaaggctgttagccggcgaggcggtgcgcacgtgtgcgtttccatcaag 186  
Sbjct: 4103 ctgatcaaggctgttagccggcgaggcgaaaggatgtgcgaaaccttctgtggacgttcatcaag 4162

**FIG. 4B**

FIG. 5A

**Ref ID:** X003238.1 | **Homo sapiens** calcium channel, voltage-dependent, L type, alpha 1D subunit (CACNA1D), mRNA, Length = 7362

Score = 89.7 bits (45), Expect = 1e-15  
Identities = 45/45 (100%)  
Strand = Plus / Plus

```

Query: 1 ctcatcgtaatcgccggcatatacgacgtggccctcagcgaaggca 45
Sbjct: 4171 ctcatcgtaatcgccggcatatacgacgtggccctcagcgaaggca 4215

```

**Score** = 946 bits (477), **Expect** = 0.0  
**Identities** = 496/500 (99%), **Gaps** = 2/500 (0%)  
**Strand** = Plus / Plus

Queso: 109  
Salsas: 4324  
Bebidas: 4383

FIG. 5B

**FIG. 5C**

Title: Purified and Isolated Platelet and Calcium Channel Nucleic Acids and Polypeptides and Therapeutic and Screening Applicant(s): Malouf et al.  
Serial No.: 10/029,413

**ref|NM\_000720.1| Homo sapiens calcium channel, voltage-dependent, L type, alpha 1D subunit (CACNA1D), mRNA, Length = 7193**

Score = 87.7 bits (44), Expect = 5e-15  
Identities = 44/44 (100%)  
Strand = Plus / Plus

Score = 946 bits (477), Expect = 0.0  
Identities = 496/500 (99%), Gaps = 2/500 (0%)  
Strand = plus / plus

Quality: 109 Density: 4154  
Length: 4213

စာမျက်နှာ: ၁၆၅ ပုဂ္ဂနိုင်လူများ: ၄၂၁၄ ပုဂ္ဂနိုင်လူများ: ၄၂၇၃

## FIG. 5D

# FIG. 5E

>db|M83566.1|HOMCACH1A Human neuroendocrine/beta-cell-type calcium channel  
alpha-1 subunit mRNA, complete cds, Length = 7193

Score = 87.7 bits (44), Expect = 5e-15  
Identities = 44/44 (100%)  
Strand = Plus / Plus

Query: 1 ctcatcgtaatcgccaggcattatacgatggccctcaggcagaaggc 44  
Sbjct: 4001 ctcatcgtaatcgccaggcattatacgatggccctcaggcagaaggc 4044

Score = 946 bits (477), Expect = 0.0  
Identities = 496/500 (99%), Gaps = 2/500 (0%)  
Strand = Plus / Plus

Query: 49 aactctgaagagagaatagaatctccatcaccctttcccgatgtgcga 108  
Sbjct: 4094 aactctgaagagagaatagaatctccatcaccctttcccgatgtgcga 4153

Query: 109 ttgggtgaaggttttcctcaggcaggggaaaggcatccggacattgttgtggactttttatcaag 168  
Sbjct: 4154 ttgggtgaagtttcctcaggcaggggaaaggcatccggacattgttgtggactttttatcaag 4213

Query: 169 tccttcaggccctcccgatggccctccatagccatgtttcatctatgcg 228  
Sbjct: 4214 tccttcaggccctcccgatggccctccatagccatgtttcatctatgcg 4273

Query: 229 gtcatttgcatacgatgtggaaatggcatgagagataacaaccagaatcattagg 288  
Sbjct: 4274 gtcatttgcatacgatgtggaaatggcatgagagataacaaccagaatcattagg 4333

Query: 289 aacaataacttcagacgtttcccaaggcggtgtgtgtttcagggttgcaacagg 348  
Sbjct: 4334 aacaataacttcagacgtttcccaaggcggtgtgtttcagggttgcaacagg 4393

Query: 349 gaggcctggcaggagatcatgtgtgtgtgtgtgtgtgtgtgtgtgtca 408  
Sbjct: 4394 gaggcctggcaggagatcatgtgtgtgtgtgtgtgtgtgtgtgtca 4453

Query: 409 gattacaacctggggaggatatacatgtggggcaacttgtggccatgtttatccatc 468  
Sbjct: 4454 gattacaacctggggaggatatacatgtggggcaacttgtggccatgtttatccatc 4513

Query: 469 agttttacatgtctgtcatttctgtga-catcaatctgtttgggtgtcatcatgg 527  
Sbjct: 4514 agttttacatgtctgtcatttctgtcatcatgg 4572

Query: 528 taatttcgactatctgacccc 547  
Sbjct: 4573 taatttcgactatctgacccc 4592

FIG. 5F